

## BLISSYMBOLS AND THE MENTALLY RETARDED -

(Deberah Harris-Vanderheiden)

I would like to share with you an experience that we have had at the University of Wisconsin which was very exciting and which we feel is significant and encouraging. About a year ago some Trace staff members were responsible for implementing a communication program for five severely mentally retarded and physically handicapped children at Central Wisconsin Colony in Madison, Wisconsin. Some of these children had been enrolled in institution school programs prior to the time that we started the Bliss Symbol program, while others had not had any prior structured educational experience. Since several of the student researchers who were to implement the program hadn't had any previous experience with these severely handicapped children, we knew there were going to be some real barriers in trying to develop an effective communication program for these children.

### BACKGROUND ON THE RESIDENTIAL ENVIRONMENT

Many pilot communication development programs are carried out in rather ideal situations and are well staffed with teachers and clinicians who are enthusiastic and well versed on the procedure before it is implemented. This program was carried out at a large institution where the staff was very busy with prior caseloads and some were initially skeptical about the use of Bliss Symbols. A good portion of the programs in the institution are carried out by direct care staff on the wards, and this means that if any program is going to be successful it has to demonstrate its value to the ward staff. This is difficult at times because these special programs must be carried out by the aides in addition to their primary concerns of clothing the children, feeding them, and providing for their "basic" care needs. To further complicate the matter, developing communication skills in non-vocal children generally would mean more work for ward aides since they would then have to respond to requests and questions from the children in addition to their regular workload.

The situation was therefore one in which the staff was willing to let us try, but the program was going to have to prove itself in order to be continued. Thus, our independent venture into the use of a new and different communication system put us on the line--which I suspect may not be too dissimilar from the position that many of you may also be in when initiating a new program at your school or institution.

### SELECTION OF THE CHILDREN FOR THE COMMUNICATION DEVELOPMENT PROGRAM

At the time we started the program there weren't any guidelines available on how to select a child for a Bliss Symbol communication





development program. We identified six things which we thought would be basic skills and used these to select five children for the program. The first thing that we thought important was the ability to establish eye contact with the child. The second thing we looked for was whether or not the child could demonstrate object permanance. This was something that we felt was fundamental for the development of communication skills. The third <sup>as a social person</sup> item that we felt was important was that the child be able to attend to task for at least five minutes. When we first started the program some teachers said that we would be lucky if we could get some of the children to look at us and that we would be even luckier if we could get the child to communicate or sit for even ten minutes with us. Later we found that by alternating time-on-task with time-off-task, the children were able to sit through two hour sessions with intermittent 15-minute breaks.

The fourth criterion was that the children be able to follow oral directions. This was assessed by asking the child to do basic things like put your hand up, put your hand down, look up at the ceiling, etc. The fifth criterion was that the children be able to demonstrate in some manner the desire to communicate. This was very subjective. We spent about a week observing the children on the wards and watched them in a number of different environments and in a number of different interactions with people. We watched for any attempts by the children to express a thought or a desire, or to interact with those around them.

One additional prerequisite for this program was that the children chosen were not currently able to produce any intelligible sounds or functional speech. A lot of children had some sounds, but if after working with the children for a week we couldn't understand anything they were trying to communicate vocally, we judged the child as not presently having speech which was functional for communication.

#### SELECTION OF THE COMMUNICATION INTERVENTION APPROACH

When we first sat down to develop a communication intervention program for these multi-handicapped children, we had not decided that use of Bliss Symbols was the approach we were going to use. Several other approaches were considered before the decision to use the Bliss Symbols was made.

One of the first things we looked at was manual signing. These children were cerebral palsied and very involved motorically, however, and we found that finger spelling and manual signing were impossible motor tasks for them. Next we considered picture boards, wordboards, and letter boards. Communication boards of some sort were currently being used with other children at Central Colony and it turned out that many of the children in this program had tried picture boards or wordboards in the past. They hadn't been successful, however. For this reason we decided not to try the picture and wordboards again, but we did keep them in mind as future possibilities for the children to





work on once they had developed some basic communication skills.

We finally decided on Bliss Symbols for a variety of reasons. One was that the children were non-vocal and really needed a means of communication which would be functional for them immediately. These children were becoming very frustrated and we thought it important to provide them with a means of communication before they began to cope with their frustration by giving up attempts to communicate. The second reason was that we thought using Bliss Symbols rather than pictures would increase the generalizability of the child's limited symbol set and allow him to say more things with the few symbols he might acquire. An advantage that Bliss Symbols had over signing and gestural systems was that the English word is always written beneath every symbol. For this reason the system would not be a closed system because anyone in the child's environment who could read would be able to interact with the child. No knowledge of the Bliss Symbols was required. This was considered very important since if these children could be provided with an effective means of communication, there was a possibility that they might be able to be placed in other educational programs.

#### THE ROLE OF SPEECH IN THE PROGRAM

Our stated objective for the program was to develop an auxiliary or augmentative means of communication which could serve as a supplement to the child's present attempts at vocal communication. We never disregarded speech for the children and it was worked on throughout the program. When we pointed to a symbol we encouraged the children to vocalize each symbol for us. We also found that when the child would co-vocalize with his pointing we were sometimes able to understand the vocal word once having been given the visual cue. The children tended to vocalize more once they began to use the symbols. They would supplement their vocalizations by pointing to the symbols, thus taking the pressure off having to rely upon their vocalizations alone to get their ideas across.

#### IMPLEMENTATION OF THE PROGRAM

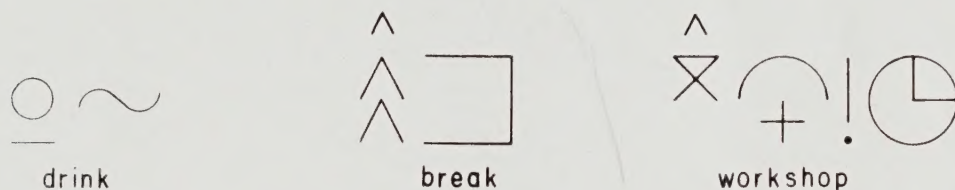
One of our first tasks was integrating and involving teachers and ward staff into the program. We were only physically at Central Colony twice a week and we therefore had to depend very much upon the staff for program carryover. The ward aides didn't get very involved in the beginning, but they became more involved as the program progressed.

To facilitate interaction and involvement of the teachers and ward aides we would leave a copy of a report describing what we had done after each teaching session. The report described everything we did: the objectives of our teaching session, what the child had learned, what he hadn't learned, and what should be worked on for the rest of the week. We found in the beginning that some of the teachers

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were not very involved, but later when the children would come back after our teaching session and start asking questions, pointing to the symbols on their trays, etc., the teachers became more actively involved. We found that after about the third week of leaving a report of session results, teachers would pick it up and scribble some notes back about how they had used Bliss Symbols in the classroom as they became more and more involved in the program. In addition, we held a planning session prior to the initiation of the program and explained the Bliss Symbol system and the proposed program. In this manner, teachers and ward staff knew what the program goals were and were able to judge its progress for themselves. They were also given a notebook to write down anecdotes about the children and their use of the symbols and to record their feedback to us. We asked them for symbols that they felt the child should learn, what <sup>understandable</sup> curriculum the child was involved in, what he was learning at school, and what the ward aides were working on with him in the ward. Again, we didn't get many symbol suggestions in the beginning. But, after the children began using the symbols for awhile, the teachers and aides would say, "She needs a symbol for workshop because she goes to workshop in the afternoon," or "She needs a symbol for break because we want her to ask for her break," or "She needs a symbol for drink because she should be the one who asks for a drink instead of us always having to give her a drink when everybody else gets one."



Another thing that we initiated was an idea exchange letter between all the teachers and ward personnel. In this newsletter the staff could write down things that they liked about the Bliss Symbols and things that they didn't like, as well as how they were using the symbols with their children. The newsletter was designed to stimulate inter-communication among the teachers themselves. We didn't take part in the newsletter at all ourselves except to get the ball rolling. The newsletter worked very well. We would get one teacher who said I am using the symbols in such and such a way in my curriculum and I have incorporated these symbols this way. The next week some other teacher would put in a paragraph saying that she had tried that but it really didn't work because of some problem but they had adapted something else. The exchange letter turned out to be very helpful.

#### IMPLEMENTING THE PROGRAM WITH THE CHILDREN

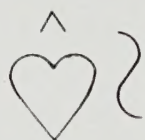
We could only meet with the children twice a week for approximately eight weeks and we had only a two-hour session with them each time.



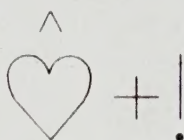


This gave us a total contact time of approximately 32 hours with the child, and an average total teaching time of approximately 20 hours.

When working with the children the first thing we wanted them to do was to identify the symbols. We wanted to determine whether or not they could discriminate the symbol for "want" from the symbol for "like" or the symbol for "like" from the symbol for "please."



to want



like



please

*clear!* We generally started with concrete symbols. This seemed to work out very well. The very first symbols that we actually introduced, however, were "yes" and "no." We used these because every one of the children had an effective means of saying "yes" and "no" and understood these concepts. We therefore started out by pairing their manners of indicating "yes" and "no" with the symbols for "yes" and "no" to get them used to the idea that the symbols had some meaning behind them and that it was a meaning that they could understand and could express. Essentially what we did was to supply them with a means of expressing things that they already knew the meaning of and used frequently.



yes



no

Next we wanted to determine whether or not they could comprehend use of other symbols. This was the first real test to assess whether or not they really understood "drink." We used the symbols "eat" and "drink," matching them with something to eat and something to drink. They caught onto that fairly well and teaching them the meaning behind the symbol for toilet was very easy.

We would then introduce other symbols and initiate their use by having them respond to questions. We would say things like "How would you tell me you wanted something to drink? How would you tell me you wanted something to eat? How would you tell me you wanted to go to the bathroom? How would you tell me you were sick?"

We took pictures of the teachers and ward personnel, put them on the children's lap trays, and then paired them with the appropriate





symbols for teacher, ward mother, etc. To incorporate the people in the environment with the Bliss Symbols we also posted the symbols on doors, windows and everything in the environment that we could label with a symbol. These symbols weren't necessarily all taught to the children. They were there to give the children a model so that they could see that Bliss Symbols could be used to label things in their environment. (Fig. 90)



Figure 90. Labelling Objects in the Environment to Model Blissymbol Use

To reinforce the children's use of the symbols we tried to insure that the children would be responded to if they tried to communicate. We didn't want to have them ask for something to eat or to drink and not be reinforced for this communication. In the beginning this was a little difficult but then the ward aides began to notice what they said was a change in the children's personalities; that these children were becoming "real people" to them and not just children to take care of. They also started becoming fascinated with the symbols and the fact that the children were able to use them. As the attitudes of the ward aides changed, they began to enjoy talking to the children and used the symbols quite extensively.

#### CASE STUDIES

Child A. Child A was 11 years old and medically diagnosed as "mentally retarded with spastic quadruplegia and microencephaly." Prior to the program, Child A's teacher described her communication as "limit-





ed to slightly differentiated sounds and indistinguishable utterances." She felt that Child A's lack of communication was the largest obstacle to her educational achievement at present.



Figure 91. Child with Blissymbols on Lap-Tray

Child A was met with once a week for approximately one and one-half hours. Sessions were broken down into (a) review, (b) practice, (c) test, (d) teaching, (e) review, (f) test. Within the 10-week program, Child A learned 15 symbols and utilized them for respondent communication. She is now able to correctly point to symbols in response to questions and will occasionally use symbols spontaneously to initiate a conversation or express a thought. She will put two symbols together to form certain thoughts and ideas correctly upon request, and in occasional self-initiated responses, i.e., want drink, want toilet. (Fig. 91) At the end of the 10-week program, Child A's teacher expressed the following:

"At first I was very skeptical, but I am impressed with the favorable results. The children are catching on and at last they can be understood. Although their communication with Bliss is still limited, I am very positive that eventually they will have total communication skills."





[Editor's Note: Sixteen months later, the child now uses over 100 symbols in both respondent and spontaneous communication. Her messages are usually around 2-4 symbols in length.]

Child B. He was 16 years old and was the oldest of the children in the program. He has cerebral palsy, is confined to a wheelchair, and cannot express himself vocally. Child B differentiated objects and symbols by slowly pointing with his left hand. An asymmetric tonic neck reflex inhibited this child's ability to look at the desired symbol when he was pointing. It was necessary to remind him to hold his head up when pointing and he was not asked to respond until he was in proper position.

It usually took Child B two to three sessions to learn a symbol completely. During the 10-week session he learned to discriminate symbols "yes," "no," "hello/goodbye," "more," and "toilet." Although he progressed more slowly and learned fewer symbols than the other children, he demonstrated that he was able to use the symbols meaningfully. During one of the final sessions, Child B, who had just returned from a 3-week hospital visit, saw his Bliss teacher and excitedly pointed to "hi." Later in that session, after receiving a sip of milk as a reinforcer, Child B emphatically pointed to "more." These were some of the child's first attempts to communicate with others without using gestures. (Fig. 92)



Figure 92. A Child's First Symbols











in this pilot program which she used appropriately in communicative situations without prompting. Program test results have indicated that she is responding to the symbol rather than the word and can select a known symbol from two or three unknown symbols. This child experiences visual confusion when a variety of unknown symbols are presented, but is able to effectively utilize a small number of symbols for respondent communication. (Fig. 93)

[Editor's Note: Sixteen months later, this child now has 125 symbols which she uses for spontaneous and respondent communication. Her average message length is 2-4 symbols].

Child D. Child D was a 12-year old with cerebral palsy. Test results were not available to confirm the medical diagnosis of "mental retardation," and it was believed, at the conclusion of the program, that this child might be more appropriately considered as "physically handicapped and educationally retarded." Prior to the program her speech was unintelligible and she communicated with others through yes-no responses and "twenty questions." The vocabulary selected by the



Figure 94. Symbol Size and Position Determined by Child's Pointing Ability



Bliss teacher for inclusion in Child D's program included:

1. Basic human needs (eat, drink)
2. Basic human emotions
- ✓ 3. Holophrastic words
4. Question words
5. Significant persons in the child's environment

The teaching format for the 10-week period consisted primarily of a test-teach-retest format. At the end of the 10-week period, Child D had learned 50 symbols and was combining them in up to 4 symbol sentences for expressive communication. Pairing of her pointing response with a verbal approximation of the symbol was encouraged. (Fig. 94)

[Editor's Note: Sixteen months later, this child has moved from Bliss Symbols to reading and a sight word vocabulary which she uses to communicate. She is also now starting to use a typewriter with a keyboard guard].

Child E. Child E is an 11-year old, also considered to be mentally retarded. She has recently been assessed with the PPVT, the Boehm Test of Basic Concepts and the Northwestern Syntax Screening Test.

Child E quickly learned the Bliss Symbols and during the second teaching session she pointed out the message "sick-time-bed," indicating



Figure 95. Flip-Cards to Help Solve Vocabulary Size Limitations





that she was sick and wanted to go to bed. The aides returned her to her ward, whereupon she began laughing and giggling, for she wasn't sick at all. She was merely playing a joke on her teachers using her new communication system. It was the first time she had ever been able to control the actions of others in a direct manner. During the following session Child E learned the symbol for "I'm sorry," and has had the opportunity to use it quite frequently since then. Child E learned new symbols rapidly and, by the end of the program, was using approximately 75 symbols. She uses the symbols for both respondent and expressive communication, (Fig. 95)

[Editor's Note: Sixteen months later, this child has a symbol vocabulary of over 200 symbols which she uses for spontaneous and respondent communication. She uses the "to make action" symbol to specify verbs and constructs her own symbols when necessary. She is currently using an OCCC electronic scanner, due to her limited pointing skills].

#### RESULTS OF THE 10-WEEK PROGRAM

Informal evaluation by Central Colony staff indicated that the Bliss Symbol program was extremely successful. Children who were on a five year old cognitive ability level were expected by the staff to be able to pick up only a couple of concrete symbols. Yet at the end of the program some of them were using 80 symbols and 4 symbol combinations to express themselves. Children who were on a 2-year old level were not expected to be able to learn the symbols, but these children learned from 7 to 30 symbols and used them for respondent communication.

